

WHAT IS CLAIMED IS:

1. A turbine bucket including a bucket airfoil having a tip shroud, said tip shroud having leading and trailing edges, said leading edge having a profile substantially in accordance with values of X and Y in a Cartesian coordinate system at points 12-20 set forth in Table I wherein X and Y are distances in inches which, when connected by smooth, continuing arcs, define the leading edge tip shroud profile.

2. A turbine bucket according to Claim 1 wherein the bucket airfoil has a profile at 95% span in accordance with X, Y and Z coordinate values set forth in Table II wherein the Table II X, Y and Z coordinate values are in inches and have the same origin along a Z axis of the Cartesian coordinate system as the origin of the Table I X, Y coordinate values.

3. A turbine bucket according to Claim 1 wherein the leading edge profile is consistent throughout the thickness of the tip shroud.

4. A turbine bucket according to Claim 1 wherein the leading edge profile lies in an envelope within ± 0.080 inches in a direction normal to any location along the leading edge profile.

5. A turbine bucket according to Claim 1 wherein the X and Y values set forth in Table I are scalable as a function of the same number to provide a scaled-up or scaled-down leading edge profile.

6. A turbine bucket including a bucket airfoil having a tip shroud, said tip shroud having leading and trailing edges, said trailing edge profile being defined substantially in accordance with values of X and Y in a Cartesian coordinate system at points 1-11 set forth in Table I wherein the X and Y values are distances in inches which, when the points are connected by smooth, continuing arcs, define the trailing edge profile of the tip shroud.

7. A turbine bucket according to Claim 6 wherein the bucket airfoil has a profile at 95% span in accordance with X, Y and Z coordinate values set forth in Table II wherein the Table II X, Y and Z coordinate values are in inches and have the same X, Y origin along a Z axis of the Cartesian coordinate system as the origin of the Table I X, Y coordinate values.

8. A turbine bucket according to Claim 6 wherein the trailing edge profile is consistent through the thickness of the tip shroud.

9. A turbine bucket according to Claim 6 wherein the trailing edge profile lies in an envelope within ± 0.080 inches in a direction normal to any location along the trailing edge profile.

10. A turbine bucket according to Claim 6 wherein the X and Y values set forth in Table I are scalable as a function of the same number to provide scaled-up or scaled-down trailing edge profiles.

11. A turbine bucket including a bucket airfoil having a tip shroud, said tip shroud having leading and trailing edges defining respective leading and trailing edge profiles substantially in accordance with values of X and Y in a Cartesian coordinate system at points 12-20 and 1-11, respectively, set forth in Table I, wherein the X and Y values are distances in inches which, when respective points 12-20 and 1-11 are connected by smooth, continuing arcs, define respective leading and trailing edge profiles of said tip shroud.

12. A turbine bucket according to Claim 11 wherein the bucket airfoil has a profile at 95% span in accordance with the X, Y and Z coordinate values set forth in Table II wherein the Table II X, Y and Z coordinate values are in inches and have the same X, Y origin along a Z axis of the Cartesian coordinate system as the X, Y coordinate values.

13. A turbine bucket according to Claim 12 wherein the X, Y and Z values of Table II are scalable as function of the same number to provide a scaled-up or scaled-down airfoil section.

14. A turbine bucket according to Claim 11 wherein the respective leading edge and trailing edge profiles are consistent through the thickness of the tip shroud.

15. A turbine bucket according to Claim 11 wherein the respective leading and trailing edge profiles lie in an envelope within ± 0.080 inches in a direction normal to any location along the respective edge profiles.

16. A turbine bucket according to Claim 11 wherein the X and Y values set forth in Table I are scalable as a function of the same number to provide scaled-up or scaled-down leading and trailing edge profiles, respectively.